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## EUROPEAN PATENT OFFICE

## Patent Abstracts of Japan

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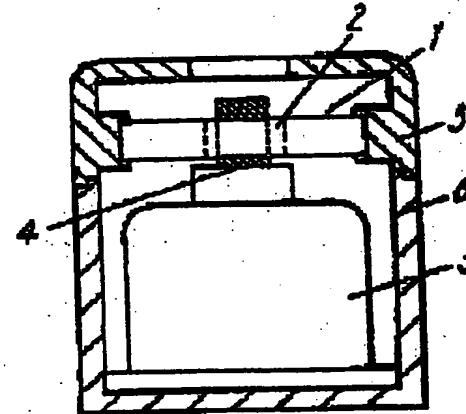
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APPLICANT : MATSUSHITA ELECTRIC IND CO LTD;

INVENTOR : HABATA ETSURO;

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TITLE : AROMATIC VESSEL



**ABSTRACT :** PROBLEM TO BE SOLVED: To prevent paralysis of the sense of smell of a human being, and maintain an effect of an aromatic by arranging a means to intermit heating of a positive characteristic thermistor heating element, and arranging the aromatic so as to be volatilized/dispersed by this heat.

**SOLUTION:** In an aromatic vessel, a sucking-up core 4 soaked in an aromatic vessel 3 is inserted into a central part through hole 2 of a positive characteristic thermistor heating element 1, and is constituted so as to volatilize/disperse an aromatic by heating this by the positive characteristic thermistor heating element 1. An interval switch set to ON for 5 minutes and OFF for 10 minutes is inserted in series to the positive characteristic thermistor heating element 1 of the aromatic vessel, and a power source is intermitted at a constant time interval, and the aromatic is volatilized/dispersed. Therefore, an intensity difference is made in a volatilizing/dispersing quantity of an aromatic liquid, and even if a person stays for many hours in a place where the aromatic vessel is installed, paralysis of the sense by habituation of the sense of smell can be prevented, and an effect of the aromatic vessel can be perpetuated. A display lamp may also be interposed in series to confirm an operation condition of the positive characteristic thermistor heating element 1.

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**CLAIMS**

[Claim(s)]

[Claim 1] The aroma machine which established a means to have had a positive-temperature-coefficient-thermistor heating element and the aromatic arranged so that it may vaporize with the heat from this positive-temperature-coefficient-thermistor heating element, and to make intermittent generation of heat of the aforementioned positive-temperature-coefficient-thermistor heating element.

[Claim 2] The aroma machine according to claim 1 which established a means to make generation of heat of a positive-temperature-coefficient-thermistor heating element intermittent at a fixed interval.

[Claim 3] The aroma machine according to claim 1 which formed the switch connected with the positive-temperature-coefficient-thermistor heating element at the serial so that a switch might be made to open and close by the heat combination with the aforementioned positive-temperature-coefficient-thermistor heating

element in order to make intermittent generation of heat of a positive-temperature-coefficient-thermistor heating element.

[Claim 4] The aroma machine according to claim 3 which it will become [ machine ] close if the switch formed in the positive-temperature-coefficient-thermistor heating element and the serial is heated with the aforementioned positive-temperature-coefficient-thermistor heating element, and becomes more than predetermined temperature and it will become open and below predetermined temperature, and was made to make intermittent generation of heat of a positive-temperature-coefficient-thermistor heating element with the switch.

[Claim 5] The aroma machine according to claim 3 or 4 whose switch formed in the positive-temperature-coefficient-thermistor heating element and the serial is a bimetal switch.

[Claim 6] The aroma machine according to claim 1 which the switch formed in the positive-temperature-coefficient-thermistor heating element and the serial is interlocked with [ machine ] a proximity sensor, senses [ machine ] a contiguity of human being, and was made to carry out fixed time opening and closing of the aforementioned switch.

[Claim 7] The switch formed in the positive-temperature-coefficient-thermistor heating element and the serial is interlocked with the sensor which detects opening and closing of a door, and they are close and the aroma machine according to claim 1 which was made to carry out open about a fixed time switch in opening and closing of a door.

[Claim 8] It is the aroma machine which it has two or more positive-temperature-coefficient-thermistor heating elements, at least one is allotted so that an aromatic may be heated, another side is arranged so that a deodorization agent may be heated, a switch is formed in each positive-temperature-coefficient-thermistor heating element in series, and was made to repeat intermittence at an interval fixed by turns.

[Claim 9] The aroma machine according to claim 8 which heated the container of an aromatic or a deodorization agent directly with the positive-temperature-coefficient-thermistor heating element.

[Claim 10] The aroma machine according to claim 8 which was made to vaporize the aromatic or the deodorization agent as a part of

positive-temperature-coefficient-thermistor heating element was directly dipped [ machine ] into an aromatic or a deodorization agent or made it contact.

[Claim 11] The aroma machine of any one publication of ten from the claim 8 which prepared the energization display lamp turned on when the switch formed in the positive-temperature-coefficient-thermistor heating element and the serial was a closed state.

## DETAILED DESCRIPTION

### [Detailed Description of the Invention]

[0001]

[The technical field to which invention belongs] this invention relates to the aroma machine which vaporizes an aromatic by heating.

[0002]

[Description of the Prior Art] In order an aroma machine generally inserts the sucking heart in the container into which the aromatic was put, suck up an aromatic, and to make it vaporize indoors by natural vaporization, or to increase the amount of vaporization and to enlarge the aroma effect, there is a method of heating the aforementioned sucking heart, it has a self-temperature-control operation as a means to heat the sucking heart, and there is little change of the skin temperature of a heating element, and, generally the positive-temperature-coefficient-thermistor heating element is used as a heating element not to overheat.

[0003]

[Problem(s) to be Solved by the Invention] However, conventionally [ aforementioned ], although a man's sense of smell sensed the smell at first in the status that the component of an aromatic is always carrying out constant-rate vaporization in the case of the aroma machine of a configuration, the feeling of a smell faded as the sense of smell got used, and there was a fault that the effect will be lost.

[0004]

[Means for Solving the Problem] Then, in order to solve the aforementioned technical problem, it prevents the sense of smell of this invention of human being being paralyzed by using a positive-temperature-coefficient-thermistor heating element for heating of an aromatic, establishing a means to make intermittent the energization to the aforementioned positive-temperature-coefficient-thermistor heating element, and changing the vaporization concentration of an aromatic by this, and it is made to make the effect of an aromatic always maintain.

[0005]

[Embodiments of the Invention] Since it has a positive-temperature-coefficient-thermistor heating element and the aromatic arranged so that it may vaporize with this heat, a means to make further intermittent generation of heat of the aforementioned positive-temperature-coefficient-thermistor heating element is established, an aromatic is intermittently heated by this configuration with a positive-temperature-coefficient-thermistor heating element and invention of this invention according to claim 1 can change the amount of vaporization of an aromatic at a certain spacing, it can prevent palsy of human being's sense of smell, and can make the effect of an aromatic maintain.

[0006] Invention of this invention according to claim 2 can establish a means to make generation of heat of a positive-temperature-coefficient-thermistor heating element intermittent at a fixed interval, since it generates heat a positive-temperature-coefficient-thermistor heating element by the fixed time period, it can be changed by the amount [ of vaporization ] fixed time period of an aromatic, for this reason, it can prevent palsy of human being's sense of smell, and can make the effect of an aromatic maintain.

[0007] Invention of this invention according to claim 3 forms in series the switch which was made to make a switch open and close generation of heat of a positive-temperature-coefficient-thermistor heating element by the heat combination with the aforementioned positive-temperature-coefficient-thermistor heating element, and uses a sensible-heat switch as a means to make intermittent generation of heat of a positive-temperature-coefficient-thermistor heating element.

[0008] If invention of this invention according to claim 4 senses the heat of the aforementioned positive-temperature-coefficient-thermistor heating element and it becomes more than predetermined temperature about the switch formed in the positive-temperature-coefficient-thermistor heating element and the serial, when it will become open and below predetermined temperature, it considers as close and is made to make intermittent generation of heat of a positive-temperature-coefficient-thermistor heating element.

[0009] Invention of this invention according to claim 5 considers the switch formed in the positive-temperature-coefficient-thermistor heating element and the serial as a bimetal switch, and defines the means for making intermittent generation of heat of a positive-temperature-coefficient-thermistor heating element.

[0010] If invention of this invention according to claim 6 interlocks with a proximity sensor the switch formed in the positive-temperature-coefficient-thermistor heating element and the serial, a contiguity of human being is sensed and fixed time and human being approach a switch - close - if it separates, it will be made to become open

[0011] Invention of this invention according to claim 7 interlocks the switch formed in the positive-temperature-coefficient-thermistor heating element and the

serial with the sensor which detects opening and closing of a door, prepare it so that it may become open about a switch with close and close [ of a door ] in a fixed time switch with open [ of a door ], and it makes intermittent generation of heat of a positive-temperature-coefficient-thermistor heating element, and vaporizes an aromatic effectively.

[0012] Invention of this invention according to claim 8 has two or more positive-temperature-coefficient-thermistor heating elements. Allot at least one so that an aromatic may be heated, and another side is arranged so that a deodorization agent may be heated. By forming a switch in each

positive-temperature-coefficient-thermistor heating element in series, being made to repeat intermittence at an interval fixed by turns, and repeating vaporization of an aromatic, and vaporization of a deodorization agent by turns Human being's sense of smell can prevent being paralyzed with vaporization of the constant

rate which the aromatic continued, and can make the effect of an aromatic maintain.

[0013] Invention of this invention according to claim 9 is a positive-temperature-coefficient-thermistor heating element, and it is constituted so that the container of an aromatic or a deodorization agent may be heated directly.

[0014] As invention of this invention according to claim 10 dips a part of

positive-temperature-coefficient-thermistor heating element directly into an aromatic or a deodorization agent or is contacted, it considers as the configuration which vaporizes an aromatic or a deodorization agent, and it vaporizes an aromatic and a deodorization agent effectively.

[0015] Invention of this invention according to claim 11 prepares the energization display lamp to turn on, when the switch formed in the

positive-temperature-coefficient-thermistor heating element and the serial is a closed state.

[0016] (Gestalt 1 of operation) One example of this invention is hereafter explained using drawing.

[0017] Drawing 1 is a cross section of an aroma machine, and it sucks up, the heart 4 is inserted and it serves as the configuration of vaporizing an aromatic, by

[ which was flooded with the aromatic container 3 at the core breakthrough 2 of the positive-temperature-coefficient-thermistor heating element 1 ] heating this

with the positive-temperature-coefficient-thermistor heating element 1. As shown in drawing 2, the aforementioned positive-temperature-coefficient-thermistor

heating element 1 the heater core which stuck the electrode plates 8a and 8b made from stainless steel on the two-electrodes side of the doughnut-like right

property thermistor element 7 with a switching temperature of 120 degrees C with silicon system adhesives (not shown) After inserting along with the periphery

of the salient 10 of the shape of a cylinder formed in the center section of the heat-resistant phenol resin case 9, it inserts in a case 9 in the status that the

terminal area of the electrode plates 8a and 8b was made to project from the lid 11 made from heat-resistant phenol resin, and has become caulking \*\*\*\*\* from

the upper and lower sides about the case 9 and the lid 11 by the system 12 further. Moreover, the cross section of the finished product of the

positive-temperature-coefficient-thermistor heating element 1 was shown in drawing 3. [0018] inserted the interval switch 13 which set the aroma machine of the aforementioned configuration as the OFF during ON and 10 minutes for 5 minutes in series with the positive-temperature-coefficient-thermistor heating element 1 of an aroma machine as shown in drawing 4, power was made intermittent by the fixed time interval, and the aromatic was vaporized. Thereby, strength is attached to the amount of vaporization of aroma liquid, even if I stay at the location in which the aroma machine was installed for a long time, palsy of the feeling by the habituation of a sense of smell can be prevented, and the effect of an aroma machine can be made to continue indefinitely. Moreover, by using the positive-temperature-coefficient-thermistor element 7 for the positive-temperature-coefficient-thermistor heating element 1, it can operate comparatively for a short time, the temperature of the sucking heart 4 of an aromatic can be maintained at constant temperature, and an aromatic can be stabilized and vaporized during heating of the positive-temperature-coefficient-thermistor heating element 1. Furthermore, in order to check the operating state of the

positive-temperature-coefficient-thermistor heating element 1, you may make intervene in series with the positive-temperature-coefficient-thermistor heating

element 1 a display lamp and turn on and turn off.

[0019] (Gestalt 2 of operation) The bimetal switch 14 which makes power intermittent at 90 degrees C in

response to the heat of the

positive-temperature-coefficient-thermistor heating element 1 of the aroma machine constituted like the gestalt 1 of operation was electrically connected with the

positive-temperature-coefficient-thermistor heating element 1 in series, as shown in drawing 5, and it constituted so that heat transfer of the heat of the

positive-temperature-coefficient-thermistor heating element 1 might be carried out thermally. Since the bimetal switch 14 becomes off at the time of ON and an

elevated temperature at the time of low temperature, if it energizes to the

positive-temperature-coefficient-thermistor heating element 1, it will generate heat, if the bimetal switch 14 becomes 90 degrees C or more in response to the heat, the bimetal switch 14 will become off and supply of the power to the

positive-temperature-coefficient-thermistor heating element 1 will be stopped. It is after that, and time progress will be carried out, the bimetal switch 14 will get

cold, it will be in an ON state, and power is again supplied to the positive-temperature-coefficient-thermistor heating element 1. Thus, an aromatic can be intermittently vaporized with an easy configuration. Moreover, if the status of ON of the bimetal switch 14 and the

heat combination with off temperature or the positive-temperature-coefficient-thermistor heating element 1 is chosen arbitrarily, the interval of intermittence can also be set up arbitrarily. Thereby, the same

effect as the operation gestalt can be acquired. Furthermore, if it is the switch which operates in response to the heat of the positive-temperature-coefficient-thermistor heating element 1, no matter what thing it may use, it does not interfere.

[0020] (Gestalt 3 of operation) As shown in view 6, it considered as the configuration which the energization change-over switch 17 is made to intervene, and

energizes the aroma machine 15 constituted like the gestalt 1 of operation, and the deodorization machine 16 into which the deodorization agent was put

Instead of the aromatic of the aforementioned aroma machine 15 at intervals of 10 minutes, and heating of the positive-temperature-coefficient-thermistor

heating element 1 performed vaporization of an aromatic and a deodorization agent by turns. The smell is absorbed by the deodorization agent in which the

aromatic which vaporized for 10 minutes by heating of the positive-temperature-coefficient-thermistor heating element 1 vaporizes for [ of a degree ] 10 minutes.

By repeating this, the effect of an aroma machine can be further strengthened from the gestalt 1 and 2 of operation.

[0021] Moreover, although the aroma machine heated an aromatic and the deodorization agent sucking heart 4 with the

positive-temperature-coefficient-thermistor heating element 1 and the aromatic and the deodorization agent were vaporized in the gestalt 1-3 of operation, even

if it uses the technique of heating the container of an aromatic and a deodorization agent directly, the effect does not change.

[0022] Furthermore, although not shown as an example of the operation gestalt, the technique of using an aromatic economically can also be applied as an effective means by operating power using the switch interlocked with opening and closing of the proximity switch prepared in the toilet etc., a door, etc., and vaporizing an aromatic intermittently as an energization intermittence switch to the positive-temperature-coefficient-thermistor heating element 1 of an aroma machine.

[0023] [Effect of the invention] As mentioned above, since the aroma machine of a configuration of having formed the positive-temperature-coefficient-thermistor heating element, the aromatic arranged so that the heat of a positive-temperature-coefficient-thermistor heating element may be received and it may vaporize, and the switch which makes intermittent generation of heat of the aforementioned positive-temperature-coefficient-thermistor heating element can change vaporization of an aromatic serially, it can offer the aroma machine which human being's sense of smell can prevent paralyzing, and can make maintain the effect of an aromatic by vaporization which the constant rate followed for a long time.

## DESCRIPTION OF DRAWINGS

[Brief Description of the Drawings]

[Drawing 1] The cross section of the aroma machine using the positive-temperature-coefficient-thermistor heating element of the 1 operation gestalt of this invention.

[Drawing 2] The decomposition perspective diagram of the positive-temperature-coefficient-thermistor heating element of the 1 operation gestalt of this invention

[Drawing 3] The cross section of the positive-temperature-coefficient-thermistor heating element of the 1 operation gestalt of this invention.

[Drawing 4] The circuit diagram using [ on the aroma machine using the positive-temperature-coefficient-thermistor heating element of the 1 operation gestalt of this invention, and ] the interval switch

[Drawing 5] The circuit diagram using [ on the aroma machine using the positive-temperature-coefficient-thermistor heating element of the 1 operation gestalt of this invention, and ] the bimetal switch

[Drawing 6] The circuit diagram which used together the aroma machine using the positive-temperature-coefficient-thermistor heating element of the 1 operation gestalt of this invention, and the deodorization machine

[Description of Notations]

1 Positive-Temperature-Coefficient-Thermistor Heating Element

2 Breakthrough

3 Aromatic Container

4 Sucking Heart

7 Positive-Temperature-Coefficient-Thermistor Element

8a, 8b Electrode plate

9 Case

10 Sallent

11 Lid

12 Eyelet

13 Interval Switch

14 Bimetal Switch

15 Aroma Machine

16 Deodorization Machine

17 Energization Change-over Switch

[Translation done.]

## •NOTICES•

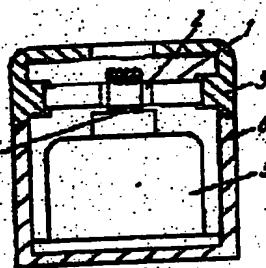
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## DRAWINGS

[Drawing 1]

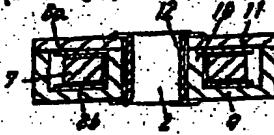
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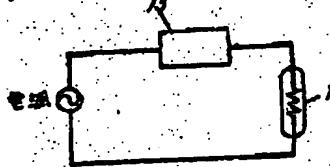
[Drawing 2]



[Drawing 3]



[Drawing 4]



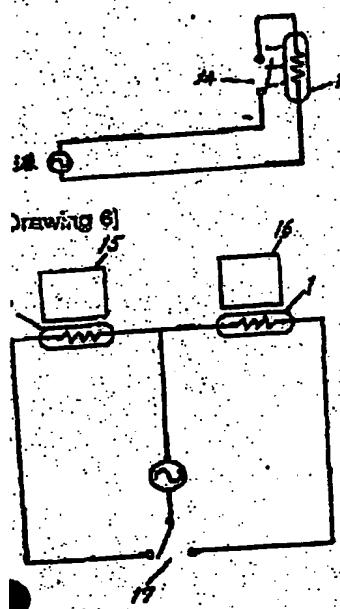
[Drawing 5]

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DRAWING 6

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